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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,900	04/20/2004	Frederick A. Ware	60809-5005	5664

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EXAMINER

BATAILLE, PIERRE-MICHEL

ART UNIT	PAPER NUMBER
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2186

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/828,900

Applicant(s)

WARE, FREDERICK A.

Examiner

Pierre-Michel Bataille

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-30 and 32 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-13 is/are rejected.
- 7) ☐ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office Action is taken in response to applicant's communication filed 24 October 2006 responding to Non-Final Rejection dated 27 June 2006. Applicant's amendments and/or arguments have been considered with the results that follow.
2. Claims 1-32 are pending in the application under prosecution.

Response to Arguments

3. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 3-13 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2005/0177675 (Newman et al).

With respect to claims 1 and 31, Newman discloses a controller, comprising: a first memory interface adapted to be coupled to one or more first memory devices wherein the first memory devices comprise volatile memory devices (***expansion card attribute memory block 406 being volatile read-write storage and includes CIS image 208 and associated access circuitry for coupling CIS image 208 to control logic 400***) [Par. 0054]; a second memory interface adapted to be coupled to one or more second memory devices wherein the second memory devices comprise non-volatile memory devices (***expansion card bus interface 401 interfacing initialization memory 402 being non-volatile storage and including CIS image 211, CFG image 213, and associated access circuitry for coupling CIS image 211 and CFG image 213 to control logic 400***) [Par. 0054]; and interface logic coupled to the first and second interfaces and configured to direct memory transactions having a predefined first characteristic to the first memory interface and to direct memory transactions having a predefined second characteristic to the second memory interface (***Expansion card attribute memory block 406 and expansion card common memory block 407 are available for processing functions performed by control logic 400, the control logic relying on obtaining information about the functions and characteristics of the expansion card by referencing a standard data-structure for card attributes,***

the Card Information Structure (CIS), the CIS data describing the operations and capabilities of the card) [par. 0013; 0054], wherein the second characteristic comprises a usage characteristic selected from the group consisting of a read-mostly characteristic and read-only characteristic (host RAM 301 provides read/write storage and host ROM 302 and host EEPROM 303 provide non-volatile storage for instructions and other read-only (302) and read-mostly (303) information) [Par. 0047].

With respect to claims 10-13, Newman discloses the first memory being of a Random Access Memory (RAM) volatile-type and the second memory being a flash memory or EEPROM non-volatile-type, the first memory being to temporary store data transferred from/to the flash memory, the RAM type memory being for temporary volatile storage type, therefore reducing power user by the non-volatile type flash memory as the non-volatile memory is used less frequently than the volatile RAM, i.e. the volatile RAM enables all provisional operations and enables baseline functionalities [Par. 0025-0020; 54; 0047].

With respect to claims 3-9, Newman discloses: the second memory devices have a limited write operation endurance; an endurance counter for counting the number of write operations to a block of memory cells in the one or more second memory devices; a set of endurance counters for counting the number of write operations to each block of memory cells in the one or more second memory devices; a write cache for storing data

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associated with write operations directed to any of the one or more secondary memories *(the first memory being to temporary store data transferred from/to the flash memory, the RAM type memory being for temporary volatile storage type; and the second memory being a flash memory or EEPROM non-volatile-type with general principle of protection to prevent over-erasure or over-write of the flash memory) [par. 0025-0029, 0047 and 0054].*

Allowable Subject Matter

6. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. Claims 15-30 and 32 are allowed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bhattacharyya et al., "FET Gate Structure for Nonvolatile N-Channel Read-Mostly Memory Devices," IBM Technical Disclosure Bulletin, US IBM Corp. vol. 18, No. 6, p. 1768, 1976.

US 6,147,618 (Chen et al) teaches that one of the most recent technologies for storing data in a non-volatile electronic data storage device is called "flash memory," the flash memory being a programmable semiconductor memory of a type called "read-mostly" memory.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Michel Bataille whose telephone number is (571) 272-4178. The examiner can normally be reached on Mon-Fri (8:00A to 4:30P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew M. Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Pierre-Michel Bataille
Primary Examiner
Art Unit 2186

January 6, 2007